



Master in Statistics

Master Thesis Guidelines

A Master's Thesis is an academic work that represents the culmination of Master's degree studies. A Master's Thesis demonstrates the academic maturity of the student, and specifically that (s)he is able to independently design and implement a small-scale academic research project. In the thesis, the student must also demonstrate sufficient depth and understanding of academic knowledge pertaining to the domain of her studies.

A Master's Thesis being, in essence, a demonstration of academic maturity, several corresponding criteria follow. The Master's candidate must demonstrate sufficient command of basic academic research activities. This including (1) the ability to review and summarize the relevant literature (including an ability to discern which literature is relevant and which is not); (2) the ability to identify and sufficiently describe a research problem that is relevant, topical and approachable; (3) the ability to design a research project (simulation study, empirical data analysis); (4) the ability to choose and/or develop and apply and/or implement appropriate statistical methods; (5) the ability to perform simulations studies to test the statistical method(s); (6) the ability to analyze empirical data and draw appropriate and reasonable conclusions and recommendations.

Accordingly, all Master's Theses should include the following elements:

- (1) definition of the research problem and literature review of the relevant literature on the topic
- (2) development of new statistical methodology (when relevant)
- (3) description, comparison and choice(s) of statistical methods
- (4) simulation study (when appropriate)
- (5) empirical data analysis (when appropriate)
- (6) conclusion with discussion of findings and recommendations for further research

There is no fundamental difference between a Master's Thesis done in conjunction with an internship or without. It is however likely that a Master's thesis done in conjunction with an internship will put more emphasis on the empirical data analysis and focus on a particular problem in a particular field or research.

There is no established criterion for the extent of a Master's Thesis in terms of page numbers. What is critical is the content, not extent.

The thesis should appropriately cite all the articles, books, and internet sources (e.g., texts downloaded from the internet, program codes and syntaxes obtained from the internet) from

which information has been drawn. Direct quotations of received sources can be used, but these must be clearly marked as quotations. Chained referencing of sources should be avoided (i.e., if a source article references another article, the candidate should find the original source and use this as reference). The input and help obtained from other persons and organizations should be acknowledged in a preface. The thesis should be honest about its own contributions and limitations. Ideas received from others should be appropriately acknowledged. No confidential information should be published without express consent by the source.